### STATE OF MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION



GOVERNOR

DAVID P. LITTELL

COMMISSIONER

May 26, 2006

Mr. Timothy Haskell Superintendent York Sewer District P.O. Box 1039 York, ME 03910

RE:

Maine Pollutant Discharge Elimination System Permit #ME0101222

Maine Waste Discharge License Application #W002687-5L-G-R

Final Permit/License

Dear Mr. Haskell:

Enclosed please find a copy of your final MEPDES permit/WDL which was approved by the Department of Environmental Protection. You must follow the conditions in the permit to satisfy the requirements of law. Any discharge not receiving adequate treatment is in violation of State Law and is subject to enforcement action.

Any interested person aggrieved by a Department determination made pursuant to applicable regulations, may appeal the decision following the procedures described in the attached DEP FACT SHEET entitled "Appealing a Commissioner's Licensing Decision."

If you have any questions regarding the matter, please feel free to call me at 287-7693.

Sincere

Division of Water Quality Management Bureau of Land and Water Quality

Enc.

cc:

Matt Hight, DEP/SMRO Sandy Lao, USEPA

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### STATE OF MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION STATE HOUSE STATION 17 AUGUSTA, MAINE 04333

### **DEPARTMENT ORDER**

### IN THE MATTER OF

#W002687-5L-G-R	APPROVAL	) RENEWAL
ME0101222		) WASTE DISCHARGE LICENSE
PUBLICLY OWNED TRI	EATMENT WORKS	) AND
YORK, YORK COUNTY	, MAINE	) ELIMINATION SYSTEM PERMIT
YORK SEWER DISTRIC	T	) MAINE POLLUTANT DISCHARGE

Pursuant to the provisions of the Federal Water Pollution Control Act, Title 33 USC, Section 1251, et. seq. and Maine Law 38 M.R.S.A., Section 414-A et seq., and applicable regulations, the Department of Environmental Protection (the Department hereinafter) has considered the application of the YORK SEWER DISTRICT (YSD hereinafter), with its supportive data, agency review comments, and other related material on file and finds the following facts:

### APPLICATION SUMMARY

The YSD has filed a timely and complete application with the Department to renew combination Maine Pollutant Discharge Elimination System (MEPDES) permit #ME0101222/Waste Discharge License (WDL) #W002687-5L-E-R (permit hereinafter), which was issued on May 4, 2001 and expired on May 4, 2006. The WDL authorized the YSD to discharge up to a monthly average flow of 3.0 million gallons per day (MGD) of secondary treated waste waters to the Cape Neddick Harbor, Class SB, in York, Maine.

### **PERMIT SUMMARY**

This permitting action is carrying forward all the terms and conditions of the 5/4/01 permit with the following exceptions:

- 1. Reducing the monitoring frequency for settleable solids from 1/Day to 5/Week.
- 2. Increasing the daily maximum limit for total residual chlorine from 0.23 mg/L to 0.3 mg/L based on new dilution factors associated with the discharge.
- 3. Increasing the acute, chronic and harmonic mean dilution factors from 18:1, 18:1 and 54:1 respectively to 32:1, 132:1 and 396:1 based on a new diffuser configuration due to be constructed during the summer of 2006.
- 4. Eliminating monthly average and or daily maximum water quality based limitations for ammonia-nitrogen and cyanide based on an up-to-date statistical evaluation of the most recent 60 months of chemical specific test results on file at the Department.
- 5. Incorporating the requirements of the Department's new (October 2005) rules found at 06-096 CMR Chapter 530, Surface Water Toxics Control Program, 06-096 CMR Chapter 584, Surface Water Quality Criteria for Toxic Pollutants.

### CONCLUSIONS

BASED on the findings in the attached Fact Sheet dated April 25, 2006, and subject to the Conditions listed below, the Department makes the following CONCLUSIONS:

- 1. The discharge, either by itself or in combination with other discharges, will not lower the quality of any classified body of water below such classification.
- 2. The discharge, either by itself or in combination with other discharges, will not lower the quality of any unclassified body of water below the classification which the Department expects to adopt in accordance with state law.
- 3. The provisions of the State's antidegradation policy, 38 MRSA Section 464(4)(F), will be met, in that:
  - a. Existing in-stream water uses and the level of water quality necessary to protect and maintain those existing uses will be maintained and protected;
  - b. Where high quality waters of the State constitute an outstanding natural resource, that water quality will be maintained and protected;
  - c. The standards of classification of the receiving water body are met or, where the standards of classification of the receiving water body are not met, the discharge will not cause or contribute to the failure of the water body to meet the standards of classification;
  - d. Where the actual quality of any classified receiving water body exceeds the minimum standards of the next highest classification, that higher water quality will be maintained and protected; and
  - e. Where a discharge will result in lowering the existing quality of any water body, the Department has made the finding, following opportunity for public participation, that this action is necessary to achieve important economic or social benefits to the State.
- 4. The discharges will be subject to effluent limitations that require application of best practicable treatment (BPT).

ME0101222 W002687-5L-G-R

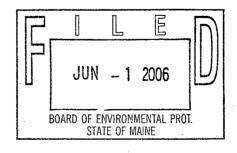
### **ACTION**

THEREFORE, the Department APPROVES the application of the YORK SEWER DISTRICT to discharge up to a monthly average flow of 3.0 MGD of secondary treated waste waters to Cape Neddick Harbor, Class SB, in York. The discharges shall be subject to the attached conditions and all applicable standards and regulations including:

- 1. "Maine Pollutant Discharge Elimination System Permit Standard Conditions Applicable To All Permits," revised July 1, 2002, copy attached.
- 2. The attached Special Conditions, including any effluent limitations and monitoring requirements.

3.	This permit expires five (5) years from the date of signature below.	
DO	ONE AND DATED AT AUGUSTA, MAINE, THIS $31^{57}$ DAY OF $97$	_2006.
CC BY	OMMISSIONER OF ENVIRONMENTAL PROTECTION  Y:  DAVID P. LITTELL, COMMISSIONER	
PL	EASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES	

Date of initial receipt of application \_\_\_\_\_\_ April 24, 2006 \_\_\_\_\_\_ Date of application acceptance \_\_\_\_\_\_ April 25, 2006 \_\_\_\_\_



Date filed with Board of Environmental Protection

This Order prepared by GREGG WOOD, BUREAU OF LAND & WATER QUALITY

W26875LG

5/26/06

# A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1. The permittee is authorized to discharge secondary treated waste waters from Outfall #001 to the tidal waters of Cape Neddick Harbor. Such discharges shall be limited and monitored by the permittee as specified below:

			,				Minimim	11170
Effluent Characteristic			Discharge Limitations	nitations			Monitoring Requirements	quirements
	Monthly	Weekly	Daily	Monthly	Weekly	Daily	Measurement	Sample
	Average	Average	Maximum	Average	Average	Maximum	Frequency	Type
Flow, MGD	3.0 MGD		Report MGD	-	-	1	Continuous	Recorder
700000	1031		1031				166/661	/RC/
BODs	750 #/Day	1,125 #/Day	1,251 #/Day	30 mg/L	45 mg/L	50 mg/L	3/Week	Composite
	, 190	. 1921	1921	1617	[61]	[19]	103/071	[24]
BOD, % Removal (1)	107			% \$8		1	1/Month	Calculate
				1231			101/301	/CA/
(81010) TSS	750 #/Day	1,125 #/Day	1,251 #/Day	30 mg/L	45 mg/L	50 mg/L	3/Week	Composite
	. 52	1961	1921	1613	1611	[6]	103/07]	[24]
100530/ TSS % Removal (1)	(07)	1071		85 %	:		1/Month	Calculate
				1231			101/301	ICAI
Settleable Solids						0.3 ml/L	5/Week	Grab
						[25]	[05/07]	[GR]
Fecal Coliform (2) (23 1951 67		1 1 1	1	15/100 ml <sup>(3)</sup>		50/100 ml	3/Week	Grab
May 15 - Sentember 30)				[13]		/131	[03/07]	[GR]
Total Residual Chlorine (4)	-	1 1 1	1	0.1 mg/L		0.3 mg/L	1/Day	Grab
				1611		[61]	110/101	/GR1
/support	200	1	1			OS 0.6-0.9	1/Day	Grab
[00400]						[12]	[10/10]	/GR/

The italicized numeric values in brackets in the tables above and the tables that follow are not limitations but codes used by Department personnel to code monthly Discharge Monitoring Reports (DMR's).

# A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

 $SCREENING\ LEVEL\ TESTING-$  Beginning 12 months prior to and lasting through permit expiration and every five years thereafter.

Effluent Characteristic		Discharge Limitations	Cimitations		Mi	Minimum
					Monitoring	Monitoring Requirements
	Monthly	Daily	Monthly	Daily	Measurement	
	Average	Maximum	Average	Maximum	Frequency	Sample Type
Whole Effluent Toxicity (5)  Acute – NOEL  Mysidopsis bahia [IDM3E]  (Mysid Shrimp)		1	1	Report % [23]	1/Year [0]/YR]	Composite [24]
Chronic – NOEL  Arbacia punctulata [TBH3A] (Sea urchin)				Report % <sub>[23]</sub>	1/Үеаг голтку	Composite [24]
Priority pollutant <sup>(6)</sup> [50008]			•	Report ug/L [28]	1/Year 101/rRJ	Composite/Grab [24]
Analytical chemistry <sup>(7)</sup> [51168]	1	-		Report ug/L [28]	1/Quarter [01/90]	Composite/Grab [24]

### A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

### Footnotes:

### **Sampling Locations:**

Influent sampling for BOD<sub>5</sub> and TSS shall be sampled after preliminary screening.

Effluent sampling- All effluent monitoring shall be conducted at a location following the last treatment unit in the treatment process as to be representative of end-of-pipe effluent characteristics.

Any change in sampling location(s) must be reviewed and approved by the Department in writing.

Sampling —Sampling and analysis must be conducted in accordance with; a) methods approved in 40 Code of Federal Regulations (CFR) Part 136, b) alternative methods approved by the Department in accordance with the procedures in 40 CFR Part 136, or c) as otherwise specified by the Department. Samples that are sent out for analysis shall be analyzed by a laboratory certified by the State of Maine's Department of Human Services.

- 1. **Percent removal** The treatment facility shall maintain a minimum of 85 percent removal of both BOD<sub>5</sub> and TSS. The percent removal shall be based on a monthly average calculation using influent and effluent concentrations. The percent removal shall be waived when the monthly average influent concentration is less than 200 mg/L. For instances when this occurs, the facility shall report "NODI-9" on the monthly Discharge Monitoring Report.
- 2. **Fecal coliform bacteria** Limits are seasonal and apply between May 15<sup>th</sup> and September 30<sup>th</sup> of each year. The Department reserves the right to require year-round disinfection to protect the health, safety and welfare of the public.
- 3. **Fecal coliform bacteria** The monthly average limitation is a geometric mean limitation and values shall be calculated and reported as such.
- 4. Total residual chlorine (TRC) TRC limitations and monitoring requirements are applicable any time of the year in which elemental chlorine or chlorine based compounds are utilized as disinfectants. TRC shall be tested using Amperometric Titration or the DPD Spectrophotometric Method. The EPA approved methods are found in <a href="Standard Methods for the Examination of Water and Waste Water">Standard Methods for the Examination of Water and Waste Water</a>, (most current approved edition), Method 4500-CL-E and Method 4500-CL-G or U.S.E.P.A. <a href="Manual of Methods">Manual of Methods</a> of Analysis of Water and Wastes.

### A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

### Footnotes:

5. Whole Effluent Toxicity (WET) Testing – Definitive WET testing is a multi-concentration testing event with a minimum of five dilutions bracketing the critical acute and chronic water quality thresholds of 3.1% and 0.8% respectively. It is noted the thresholds expressed as percent effluent are the mathematical inverses of the acute and chronic dilution factors of 32:1 and 132:1, respectively. WET testing provides a point estimate of toxicity in terms of No Observed Effect Level, commonly referred to as NOEL or NOEC. A-NOEL is defined as the acute no observed effect level with survival as the end point. C-NOEL is defined as the chronic no observed effect level with survival, reproduction and growth as the end points.

Screening level testing – Beginning 12 months prior to and lasting through permit expiration and every five years thereafter, the permittee shall conduct screening level WET testing at a minimum frequency of once per year (1/Year). Acute tests shall be conducted on the mysid shrimp (<u>Mysidopsis bahia</u>) and chronic tests shall be conducted on the sea urchin (<u>Arbacia punctulata</u>). It is noted surveillance level testing during the first four years of the term of the permit has been waived.

The permittee is also required to analyze the effluent for the parameters specified in the analytical chemistry on the form in Attachment A of this permit each time a WET test is performed. WET test results must be submitted to the Department not later than the next Discharge Monitoring Report (DMR) required by the permit, provided, however, that the permittee may review the toxicity reports for up to 10 business days of their availability before submitting them. The permittee shall evaluate test results being submitted and identify to the Department possible exceedences of the critical acute and chronic water quality thresholds of 3.1% and 0.8%, respectively.

Toxicity tests must be conducted by an experienced laboratory approved by the Department. The laboratory must follow procedures as described in the following USEPA methods manuals.

U.S. Environmental Protection Agency. 2002. *Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms*, 5th ed. EPA 821-R-02-012. U.S. Environmental Protection Agency, Office of Water, Washington, D.C., October 2002 (the acute method manual).

U.S. Environmental Protection Agency. 2002. Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Marine and Estuarine Organisms, 3 rd ed. EPA 821-R-02-014. U.S. Environmental Protection Agency, Office of Water, Washington, D.C., October 2002 (the marine chronic method manual).

### A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

### Footnotes:

6. **Priority pollutant testing** – Priority pollutants are those parameters listed by Department rule, Chapter 525, Section 4(IV).

Screening level testing – Beginning 12 months prior to and lasting through permit expiration and every five years thereafter, the permittee shall conduct screening level priority pollutant testing at a minimum frequency of once year (1/Year). It is noted Department rules do not require priority pollutant testing for the first four years of the term of this permit.

Priority pollutant testing shall be conducted on samples collected at the same time as those collected for whole effluent toxicity tests, when applicable. Priority pollutant testing shall be conducted using methods that permit detection of a pollutant at existing levels in the effluent or that achieve minimum reporting levels of detection as specified by the Department. See Attachment A of this permit for a list of the Department's reporting limits (RLs). For the purposes of DMR reporting, enter a "1" for <u>yes</u>, testing done this monitoring period or "NODI-9" monitoring <u>not required</u> this period.

All mercury sampling required by this permit or required to determine compliance with interim limitations established pursuant to Department rule Chapter 519, shall be conducted in accordance with EPA's "clean sampling techniques" found in EPA Method 1669, Sampling Ambient Water For Trace Metals At EPA Water Quality Criteria Levels. All mercury analysis shall be conducted in accordance with EPA Method 1631, Determination of Mercury in Water by Oxidation, Purge and Trap, and Cold Vapor Fluorescence Spectrometry.

7. Analytical chemistry – Refers to a suite of chemical tests that include ammonia nitrogen (as N), total aluminum, total arsenic, total cadmium, total chromium, total copper, total cyanide, total lead, total nickel, total silver, total zinc and total residual chlorine.

Screening level testing – Beginning 12 months prior to and lasting through permit expiration and every five years thereafter, the permittee shall conduct screening level analytical chemistry testing at a minimum frequency of once per calendar quarter (1/Quarter). It is noted surveillance level testing during the first four years of the term of the permit has been waived. Analytical chemistry testing shall be conducted using methods that permit detection of a pollutant at existing levels in the effluent or that achieve minimum reporting levels of detection as specified by the Department. See Attachment A of this permit for a list of the Department's reporting limits.

### A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

### Footnotes:

Priority pollutant and analytical chemistry test results must be submitted to the Department not later than the next DMR required by the permit, provided, however, that the permittee may review the toxicity reports for up to 10 business days of their availability before submitting them. The permittee shall evaluate test results being submitted and identify to the Department, possible exceedences of the acute, chronic or human health AWQC as established in Department rule Chapter 584. For the purposes of DMR reporting, enter a "1" for <u>yes</u>, testing done this monitoring period or "NODI-9" monitoring <u>not required</u> this period.

### **B. NARRATIVE EFFLUENT LIMITATIONS**

- 1. The effluent shall not contain a visible oil sheen, foam or floating solids at any time which would impair the usages designated by the classification of the receiving waters.
- 2. The effluent shall not contain materials in concentrations or combinations which are hazardous or toxic to aquatic life, or which would impair the usages designated by the classification of the receiving waters.
- 3. The discharge shall not impart color, taste, turbidity, toxicity, radioactivity or other properties which cause those waters to be unsafe for the designated uses and characteristics ascribed to their classification.
- 4. Notwithstanding specific conditions of this permit, the effluent must not lower the quality of any classified body of water below such classification, or lower the existing quality of any body of water if the existing quality is higher than the classification.

### C. DISINFECTION

If chlorination is used as the means of disinfection, an approved chlorine contact tank providing the proper detention time consistent with good engineering practice must be utilized followed by a dechlorination system if the imposed total residual chlorine (TRC) limit cannot be achieved by dissipation in the detention tank. The total residual chlorine in the effluent shall at no time cause any demonstrable harm to aquatic life in the receiving waters. The dose of chlorine applied shall provide a TRC concentration that will effectively reduce fecal coliform bacteria levels to or below those specified in Special Condition A, *Effluent Limitation and Monitoring Requirements*, of this permit.

### D. TREATMENT PLANT OPERATOR

The waste water treatment facility must be operated under the direction of a person holding a minimum of a **Grade IV** certificate [or Maine Professional Engineer (PE) registration] pursuant to Title 32 M.R.S.A., Section 4171 et seq. All proposed contracts for facility operation by any person must be approved by the Department before the permittee may engage the services of the contract operator.

### E. LIMITATIONS FOR INDUSTRIAL USERS

Pollutants introduced into the waste water collection and treatment system by a non-domestic source (user) shall not pass through or interfere with the operation of the treatment system.

### F. UNAUTHORIZED DISCHARGES

The permittee is authorized to discharge only in accordance with the terms and conditions of this permit and only from Outfall 001. Discharges of waste water from any other point source are not authorized under this permit, but shall be reported in accordance with Standard Condition B(5) (*Bypass*) of this permit.

### G. NOTIFICATION REQUIREMENT

In accordance with Standard Condition D, the permittee shall notify the Department of the following:

- 1. Any introduction of pollutants into the waste water collection and treatment system from an indirect discharger in a primary industrial category discharging process waste water; and
- 2. Any substantial change in the volume or character of pollutants being introduced into the waste water collection and treatment system.
- 3. For the purposes of this section, adequate notice shall include information on:
  - a. The quality and quantity of waste water introduced to the waste water collection and treatment system; and
  - b. Any anticipated impact of the change in the quality or quantity of the waste water to be discharged from the treatment system.

### H. WET WEATHER FLOW MANAGEMENT PLAN

The treatment facility staff shall develop and maintain a current written Wet Weather Management Plan to direct the staff on how to operate the facility effectively during periods of high flow and maximize the volume of waste water receiving secondary treatment under all operating conditions. The Department acknowledges that the existing collection system may deliver flows in excess of the monthly average design capacity of the treatment plant during periods of high infiltration and rainfall. The plan shall include operating procedures for a range of intensities, address solids handling procedures (including septic waste and other high strength wastes if applicable) and provide written operating and maintenance procedures during the events.

The permittee shall review their plan annually and record any necessary changes to keep the plan up to date.

### I. OPERATION & MAINTENANCE (O&M) PLAN

The permittee shall develop and maintain a current written comprehensive Operation & Maintenance (O&M) Plan. The plan shall provide a systematic approach by which the permittee shall at all times, properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit.

By December 31 of each year, or within 90 days of any process changes or minor equipment upgrades, the permittee shall evaluate and modify the O&M Plan including site plan(s) and schematic(s) for the wastewater treatment facility to ensure that it is up-to-date. The O&M Plan shall be kept on-site at all times and made available to Department and other regulatory personnel upon request.

Within 90 days of completion of new and or substantial upgrades of the wastewater treatment facility, the permittee shall submit the updated O&M Plan to their Department inspector for review and comment.

### J. DISPOSAL OF SEPTAGE WASTE IN WASTE WATER TREATMENT FACILITY

During the effective period of this permit, the permittee is authorized to add up to **7,500 gallons per day** of septage into its waste water treatment process, subject to the following terms and conditions.

- 1. This approval is limited to methods and plans described in the application and supporting documents. Any variations are subject to review and approval prior to implementation.
- 2. At no time shall addition of septage cause or contribute to effluent violations. If such conditions do exist, receipt of septage shall be suspended until effluent quality can be maintained.
- 3. The permittee shall maintain records which shall include, as a minimum, the following by date: volume of septage received, source of the septage (name of municipality), the hauler transporting the septage, the dates and volume of septage added to the waste treatment influent and test results.
- 4. Addition of septage shall not cause the treatment facilities design capacity to be exceeded. If, for any reason, the treatment facility becomes overloaded, receipt of septage shall be reduced or terminated in order to eliminate the overload condition.
- 5. Septage known to be harmful to the treatment processes shall not be accepted. Wastes which contain heavy metals, toxic chemicals, extreme pH, flammable or corrosive materials in concentrations harmful to the treatment operation shall be refused.
- 6. Holding tank waste water shall not be recorded as septage and should be reported in the treatment facility's influent flow.

### K. MONITORING AND REPORTING

Monitoring results obtained during the previous month shall be summarized for each month and reported on separate Discharge Monitoring Report (DMR) forms provided by the Department and postmarked on or before the thirteenth (13<sup>th</sup>) day of the month or hand-delivered to a Department Regional Office such that the DMR's are received by the Department on or before the fifteenth (15<sup>th</sup>) day of the month following the completed reporting period. A signed copy of the DMR and all other reports required herein shall be submitted to the Department's compliance inspector (unless otherwise specified by the Department) to the following address:

Maine Department of Environmental Protection
Bureau of Land & Water Quality, Division of Water Quality Management
312 Canco Road
Portland, Maine 04103

### L. CHAPTER 530(2)(D)(4) CERTIFICATION

On or before December 31 of each year [PCS code 95799] the permittee is required to file a statement with the Department describing the following.

- 1. Changes in the number or types of non-domestic wastes contributed directly or indirectly to the wastewater treatment works that may increase the toxicity of the discharge;
- 2. Changes in the operation of the treatment works that may increase the toxicity of the discharge; and
- 3. Changes in industrial manufacturing processes contributing wastewater to the treatment works that may increase the toxicity of the discharge.

Further, the Department may require that annual whole effluent toxicity (WET) priority pollutant and/or analytical chemistry testing be re-instituted if it determines that there have been changes in the character of the discharge or if annual certifications described above are not submitted.

### M. REOPENING OF PERMIT FOR MODIFICATIONS

Upon evaluation of the tests results or monitoring requirements specified in Special Conditions of this permitting action, new site specific information, or any other pertinent test results or information obtained during the term of this permit, the Department may, at any time, and with notice to the permittee, modify this permit to: (1) include effluent limits necessary to control specific pollutants or whole effluent toxicity where there is a reasonable potential that the effluent may cause water quality criteria to be exceeded; (2) require additional effluent or ambient water quality monitoring if results on file are inconclusive; or (3) change monitoring requirements or limitations based on new information.

### N. SEVERABILITY

In the event that any provision, or part thereof, of this permit is declared to be unlawful by a reviewing court, the remainder of the permit shall remain in full force and effect, and shall be construed and enforced in all aspects as if such unlawful provision, or part thereof, had been omitted, unless otherwise ordered by the court.

# ATTACHMENT A

# MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION WHOLE EFFLUENT TOXICITY REPORT MARINE WATERS

Facility Name		MEPDES Perm	
			,
Facility Representative		Signature	
By signing this form, I attest the	at to the best of my knowledge that the	information provided is true, accurate,	and complete.
Facility:Telephone#		Date Collected	Date Tested
		mm/dd/yy	mm/dd/yy
Chlorinated?	Dechlorinated?	T.	
Results	%effluent	<u> </u>	Emuent I imitations
	nysid shrimp sea urchin	<i>,</i> 3	A-NOEL
A-NOEL C-NOEL			C-NOEL
			· ·
Datasummary	mysid shrung	sea urchin	
QC standard	>90	% fertilized >80	Salinity Adjustment
lab control		- 500	brine
receiving water control	· · · · · · · · · · · · · · · · · · ·	•	sea salt
conc. 1 (%)			other
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Laboratory conducting test			
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Mailing Address		Company Rep Signature	
City, State, ZIP		Company Telephone #	

Report WET chemistry on DEP Form "WET and Analytical Chemistry Results - Marine Waters, December 2005."

## MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION WET AND ANALYTICAL CHEMISTRY RESULTS MARINE WATERS

Facility Name				MEPDES Permit#-		
Facility Representative			·	Signature		
	the best of my knowledge that the i	nformation prov	rided is true, accurate an	nd complete.		
Date Collected			Date Analyzed		·	
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	Analyte	Report	Receiving Water	Effluent	Reporting	
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•	Total chromium	μg/L	*	·	μg/L μg/L	
	Total copper	μg/L	*		μg/L μg/L	
	Total cyanide	μg/L	*		μg/L	
	Total lead	μg/L	*		μg/L	
	Total nickel	μg/L	*		μg/L	<del> </del>
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	Total organic carbon Total solids	mg/L mg/L			mg/L	
Required For	Total suspended solids	mg/L	Section Sectio		mg/L	
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Maine Department of Environmental Protection

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### Notes

- (1) Flow average for day pertains to WET/PP composite sample day.
- (2) Flow average for month is for month in which WET/PP sample was taken.
- (3) Analytical chemistry parameters must be done as part of the WET test chemistry.
- (4) Priority Pollutants should be reported in micrograms per liter (ug/L).
- (5) Mercury is often reported in nanograms per liter (ng/L) by the contract laboratory, so be sure to convert to micrograms per liter on this spreadsheet.
  - (6) Effluent Limits are calculated based on dilution factor, background allocation (10%) and water quality reserves (15% to allow for new or changed discharges or non-point sources).
- (7) Possible Exceedence determinations are done for a single sample only on a mass basis using the actual pounds discharged. This analysis does not consider watershed wide allocations for fresh water discharges.

## MAINE POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT AND MAINE WASTE DISCHARGE LICENSE

### **FACT SHEET**

Date: April 25, 2006

PERMIT NUMBER:

ME0101222

LICENSE NUMBER:

W002687-5L-G-R

NAME AND ADDRESS OF APPLICANT:

YORK SEWER DISTRICT P.O. Box 1039 York, Maine 03910

COUNTY:

**York County** 

NAME AND ADDRESS WHERE DISCHARGE OCCURS:

21 BayHaven Road York, Maine 03910

RECEIVING WATER/CLASSIFICATION:

Cape Neddick Harbor/Class SB

COGNIZANT OFFICIAL AND TELEPHONE NUMBER:

Mr. Timothy Haskell, Supt.

(207) 363-5581

Email: tim@yorksewer.org

### 1. APPLICATION SUMMARY

a. <u>Application</u> - The York Sewer District (YSD) has filed a timely and complete application with the Department to renew combination Maine Pollutant Discharge Elimination System (MEPDES) permit #ME0101222/Waste Discharge License (WDL) #W002687-5L-E-R (permit hereinafter), which was issued on May 4, 2001 and expired on May 4, 2006. The WDL authorized the YSD to discharge up to a monthly average flow of 3.0 million gallons per day (MGD) of secondary treated waste waters to the Cape Neddick Harbor, Class SB receiving waters, in York, Maine. See Attachment A of this Fact Sheet for a location map.

### 1. APPLICATION SUMMARY

- b. Source Description: The YSD waste water treatment facility receives sanitary waste waters from residential and commercial users within the District's boundaries. There are no significant industrial users contributing flows to the facility. The separated sewer collection system, which does not contain combined sewer overflow (CSO) points, consists of 28 miles of collection piping and eleven (11) pump stations. Three (3) of the pump stations have on-site generators for back-up power and the remaining eight (8) pump stations are equipped with emergency generator receptacles and manual transfer switches such that back-up power via a portable generator can be supplied to the stations in the event of a power failure. The YSD facility is currently permitted to accept and treat up to 7,500 gallons of septage per day from local septage haulers.
- c. Waste Water Treatment: The YSD facility provides a secondary level of treatment via a conventional activated sludge treatment process that includes a bar screen, a cyclonic Pista grit separation chamber, six aeration basins, two secondary clarifiers, and a chlorine contact chamber for seasonal disinfection using sodium hypochlorite. The YSD waste water treatment facility has an average daily design capacity of 3.0 MGD and a peak hourly flow capacity of 7.5 MGD. The majority of waste water is transported to the facility via the Long Beach Pump Station.

Waste water receives preliminary treatment in the headworks. Rags and other debris are removed by a mechanical filter screen while grit and other inorganic material are removed with the grit removal system. Waste water then flows to the aeration tanks, where a mixed liquor provides biological treatment. From the aeration tanks, waste waters flows to the two circular clarifiers. The 70-foot diameter clarifiers, each with a 13-foot sidewall depth, are covered with an aluminum dome and have a center feed system with peripheral overflow into scum launders that extend into the tanks. The sludge collection mechanism is a differential head system with sludge withdrawal lines mounted on the revolving scraper arms. Floating scum is collected by a full length radial surface skimmer and trough and is discharged to a scum well. Return activated sludge from the clarifiers is recycled back to the aeration tanks via 8-inch diameter pipes. The sludge can be returned to the headworks or to the aeration tanks. Clarified effluent flows to a chlorine contact tank and the treated plant effluent discharges to Cape Neddick Harbor via a 24-inch diameter ductile iron pipe that extends out into the receiving waters approximately 1,700 feet. The end of the existing outfall pipe is fitted with a two port high-velocity diffuser to enhance mixing of the effluent with the receiving waters. There is approximately 20 feet of water over the diffuser at mean low tide. During calendar year 2006, the permittee is proposing to improve mixing conditions by installing a new diffuser consisting of a 10-meter long manifold with 16 equally spaced 8-inch diameter ports oriented vertically. The Department has determined through modeling that the new diffuser will greatly enhance mixing of the discharge with the receiving water and increase the acute, chronic and harmonic mean dilution factors for the facility's discharge. See Section 6(b) of this Fact Sheet for more information regarding modeling to determine dilution factors. See Attachment B of this Fact Sheet for a schematic of waste water treatment facility.

### 2. PERMIT SUMMARY

- a. <u>Terms and Conditions</u> This permit carries forward all terms and conditions of the MEPDES permit/WDL with the following exceptions;
  - 1. Reducing the monitoring frequency for settleable solids from 1/Day to 5/Week.
  - 2. Increasing the daily maximum limit for total residual chlorine from 0.23 mg/L to 0.3 mg/L based on new dilution factors associated with the discharge.
  - 3. Increasing the acute, chronic and harmonic mean dilution factors from 18:1, 18:1 and 54:1 respectively to 32:1, 132:1 and 396:1 based on a new diffuser configuration due to be constructed during the summer of 2006.
  - 4. Eliminating monthly average and or daily maximum water quality based limitations for ammonia-nitrogen and cyanide based on an up-to-date statistical evaluation of the most recent 60 months of chemical specific test results on file at the Department.
  - 5. Incorporating the requirements of the Department's new (October 2005) rules found at 06-096 CMR Chapter 530, Surface Water Toxics Control Program, 06-096 CMR Chapter 584, Surface Water Quality Criteria for Toxic Pollutants.
- b. <u>History</u> Relevant regulatory actions for the YSD include the following:
  - August 22, 1988—The Department issued WDL #W002687-46-A-R for five-year term. The WDL approved a monthly average discharge of up to 1.6 MGD of secondary treated waste water to Cape Neddick Harbor.
  - March 2, 1992—The U.S. Environmental Protection Agency (EPA) issued an Administrative Order to the YSD requiring improvements at the facility to adequately treat up to 3.0 MGD.
  - September 24, 1992—The EPA issued a permit modification and the Department issued WDL #W002687-46-B-A authorizing an increase in the discharge flow from 1.6 MGD to 3.0 MGD.
  - May 4, 1993—The Department authorized a reduction in whole effluent toxicity (WET) testing from 1/Quarter to 1/Year.
  - July 5, 1995—The Department issued a renewal of W002687-46-B-A for a five-year term.
  - September 23, 1996—The EPA issued National Pollutant Discharge Elimination System (NPDES) permit #ME0101222 for a five-year term.

### 2. PERMIT SUMMARY: (cont'd)

November 3, 1997—The Department administratively modified the daily maximum limitation for fecal coliform bacteria by increasing the limit from 15 colonies per 100 mL to 50 colonies per 100 mL.

May 23, 2000 – The Department administratively modified the 5/5/95 WDL by establishing interim average and maximum concentration limits for mercury.

September 25, 2000—The EPA issued a renewal of NPDES permit #ME0101222 for a five-year term.

January 12, 2001 – The State of Maine received authorization from the U.S. Environmental Protection Agency to administer the National Pollutant Discharge Elimination System (NPDES) permit program in Maine.

May 6, 2001 - The Department issued combination MEPDES permit #ME0101222/WDL #W002687-5L-E-R for a five-year term that superseded the terms and conditions of the 5/25/00 NPDES permit issued by the EPA.

April 24, 2006 – The YSD submitted a complete and timely application to the Department to renew the MEPDES permit/WDL for the YSD facility.

### 3. CONDITIONS OF PERMITS

Maine law, 38 M.R.S.A. Section 414-A, requires that the effluent limitations prescribed for discharges, including, but not limited to, effluent toxicity, require application of best practicable treatment (BPT), be consistent with the U.S. Clean Water Act, and ensure that the receiving waters attain the State water quality standards as described in Maine's Surface Water Classification System. In addition, 38 M.R.S.A., Section 420 and Department rule 06-096 CMR Chapter 530, Surface Water Toxics Control Program, require the regulation of toxic substances not to exceed levels set forth in Department rule 06-096 CMR Chapter 584, Surface Water Quality Criteria for Toxic Pollutants, and that ensure safe levels for the discharge of toxic pollutants such that existing and designated uses of surface waters are maintained and protected.

### 4. RECEIVING WATER QUALITY STANDARDS

Maine law, 38 M.R.S.A., Section 469 classifies the marine waters of Cape Neddick Harbor as a Class SB waterway. Maine law, 38 M.R.S.A., Section 465-B(2) describes the classification standards for Class SB waterways.

### 5. RECEIVING WATER QUALITY CONDITIONS

A document entitled, The State of Maine, Department of Environmental Protection, 2004 Integrated Water Quality Monitoring and Assessment Report (305b) report published by the Department pursuant to Section 305(b) of the Federal Water Pollution Control Act lists Cape Neddick (Waterbody ID 826-3, DMR Area 3, 1,207 acres) in a table entitled, Category 5-B-1, Estuarine and Marine Waters Impaired only by Bacteria (TMDL Required). The impairment is due to elevated fecal bacteria levels caused by non-point sources. The Department has determined the YSD facility will not cause or contribute to the impairment provided it maintains compliance with the fecal coliform bacteria limits in this permitting action.

It is noted that all fresh water bodies in Maine carry a fish advisory for mercury due to atmospheric transport and deposition. Maine law 38 M.R.S.A., §420 and Department Rule, Chapter 519, *Interim Effluent Limitations and Controls For the Discharge of Mercury*, establishes controls of mercury to surface waters of the State and United States through interim effluent limitations and implementation of pollution prevention plans. On May 23, 2000, the Department administratively modified the YSD's WDL by establishing an average concentration limit of 4.5 ng/L and a daily maximum concentration limit of 6.8 ng/L with a monitoring frequency of 1/Quarter based on a past demonstrated performance evaluation of four mercury test results submitted between August of 1998 and September of 1999.

### 6. EFFLUENT LIMITATIONS & MONITORING REQUIREMENTS

- a. <u>Flow</u> The previous permitting action established a monthly average flow limitation of 3.0 MGD that is being carried forward in this permitting action. The limit reflects the monthly average design capacity of the existing waste water treatment facility. A review of the monthly Discharge Monitoring Report (DMR) data for the period 7/02-7/05 indicates the monthly average flow has ranged from 0.76 MGD to 2.31 MGD with an arithmetic mean of 1.33 MGD.
- b. <u>Dilution Factors:</u> Department Regulation Chapter 530, "Surface Water Toxics Control Program", §4(A)(2)(a) states that for discharges to the ocean, dilution must be calculated as near-field or initial dilution, or that dilution available as the effluent plume rises from the point of discharge to its trapping level, at mean low water level and slack tide for the acute exposure analysis and at mean tide for the chronic exposure analysis using appropriate models determined by the Department such as MERGE, CORMIX or another predictive model determined by the Department to be appropriate for the site conditions.

Using plan and profile information of the new diffuser provided by the permittee and the CORMIX model, the Department has determined the dilution factors for the discharge of 3.0 MGD from the waste water treatment facility will be as follows:

Acute = 32:1

Chronic – 132:1

Harmonic Mean =396:1<sup>(1)</sup>

### Footnote:

- (1) Pursuant to Department rule Chapter 530, "Surface Water Toxics Control Program", §4(2)(c), the harmonic mean dilution factor is approximated by multiplying the chronic dilution factor by a factor of three (3).
- c. <u>Biochemical Oxygen Demand (BOD5) & Total Suspended Solids (TSS):</u> The previous permitting action established monthly and weekly average BOD5 and TSS best practicable treatment (BPT) concentration limits of 30 mg/L and 45 mg/L respectively, that are based on secondary treatment requirements pursuant to Department rule Chapter 525(3)(III). The maximum daily BOD5 and TSS concentration limits of 50 mg/L were based on a Department best professional judgment of BPT. All three concentration limits are being carried forward in this permitting action.

As for mass limitations, the previous permitting action established monthly average, weekly average and daily maximum limitations based on a monthly average flow limit of 3.0 MGD that are being carried forward in this permitting action. The limitations were derived as follows:

Monthly average: (3.0 MGD)(8.34)(30 mg/L) = 750 lbs/dayWeekly average: (3.0 MGD)(8.34)(45 mg/L) = 1,125 lbs/dayDaily maximum: (3.0 MGD)(8.34)(50 mg/L) = 1,250 lbs/day

This permitting action carries forward the requirement for 85% removal for BOD and TSS pursuant to Department rule Chapter 525(3)(III)(a&b)(3).

Monitoring frequencies for BOD and TSS of 3/Week are being carried forward from the previous permitting action and are based on long standing Department guidance for facilities with a monthly average flow limitation between 1.0 MGD and 5.0 MGD.

A review of the DMR data for the period 7/02 - 7/05 indicates the discharge from the waste water treatment facility is consistently less than 50% of the mass and concentration limits in this permitting action.

- d. Settleable Solids The previous permit established a daily maximum concentration BPT limit of 0.3 ml/L that is being carried forward in this permitting action. A review of the DMR data for the period 7/02 7/05 indicates the settleable solids levels have ranged from 0.0 ml/L to 0.2 ml/L with an arithmetic mean of 0.05 ml/L.
- e. Fecal Coliform Bacteria The previous permitting action established monthly average and daily maximum limits of 15 colonies/100 ml and 50 colonies/100 ml and are based on the Maine Water Classification Program criteria for the receiving waters (including standards in the National Shellfish Sanitation Program) and requires application of the BPT technology. The limitations are seasonal and apply from May 15<sup>th</sup> September 30<sup>th</sup> of each year. The monitoring frequency for fecal coliform bacteria of 3/Week is being carried forward from the previous permitting action and is based on a long standing Department guidance for facilities with a monthly average flow limitation greater than 1.0 MGD but less than 5.0 MGD.

A review of the DMR data for the seasonal period May 2004 – September 2005 indicates the monthly bacteria levels range from 0-13 colones/100 ml with an arithmetic mean of 5 colonies/100 ml while the daily maximum bacteria levels have ranged from 1-43 colonies/100 ml with an arithmetic mean of 20 colonies/100 ml. The Department reserves the right to require year-round disinfection to protect the health and welfare of the public.

f. Total Residual Chlorine (TRC) - The previous permitting action established a water quality based daily maximum concentration limit of 0.2 mg/L and a monthly average technology based concentration limit of 0.1 mg/L. Limits on TRC are specified to ensure that ambient water quality standards are maintained and that BPT technology is being applied to the discharge. The Department imposes the more stringent of the water quality or technology based thresholds in permitting actions. End-of-pipe water quality based concentration thresholds may be calculated as follows:

Parameter	Acute	Chronic	Acute	Chronic	Acute	Chronic
	Criteria	Criteria	Dilution	Dilution	Threshold	Threshold
Chlorine	0.013 mg/L	0.0075 mg/L	32:1	132:1	0.42 mg/L	0.99 mg/L

Example calculation: Acute -0.013 mg/L (32) = 0.42 mg/L

To meet the acute water quality based threshold calculated above, the permittee must dechlorinate the effluent prior to discharge. The Department has established a daily maximum BPT limitation of 0.3 mg/L for facilities that need to dechlorinate their effluent unless calculated water quality based limits are lower than 0.3 mg/L. In the case of the YSD, the calculated acute (daily maximum) water quality based threshold of 0.42 mg/L is higher than the BPT limit of 0.3 mg/L, thus the technology based limit of 0.3 mg/L is imposed. For the monthly average, the calculated chronic water quality based threshold of 0.99 mg/L is higher than the BPT limit of 0.1 mg/L, thus the BPT limit of 0.1 mg/L is

imposed. A review of the DMR data for the period May 2004 through September 2005 indicates the monthly average TRC discharge levels have ranged from 0.0 mg/L to 0.13 mg/L with an arithmetic mean of 0.02 mg/L. As for daily maximum, TRC levels have ranged from .02 mg/L to 1.09 mg/L with three exceedences reported in May 2004. Without the exceedences, the arithmetic mean daily maximum discharges levels are 0.12 mg/L. The monitoring frequency for TRC of 1/Day is being carried forward from the previous permitting action and are based on a long standing Department guidance for facilities with a monthly average flow limitation greater than 1.0 MGD but less than 5.0 MGD.

- g. <u>pH Range</u>- The previous permitting action established a BPT pH range limit from to 6.0 –9.0 standard units pursuant to Department rule found at Chapter 525(3)(III)(c). The pH range limit and 1/Day monitoring requirement is being carried forward in this permitting action. A review of the DMR data for the period January 2003 through December 2005 indicates the pH range limitation has never been exceeded.
- h. Mercury: Pursuant to Maine law, 38 M.R.S.A. §420 and Department rule, 06-096 CMR Chapter 519, Interim Effluent Limitations and Controls for the Discharge of Mercury, the Department issued a Notice of Interim Limits for the Discharge of Mercury to the permittee thereby administratively modifying the permittee's WDL by establishing interim monthly average and daily maximum effluent concentration limits of 4.5 parts per trillion (ppt) and 6.8 ppt, respectively, and a minimum monitoring frequency requirement of four tests per year for mercury. The interim mercury limits were scheduled to expire on October 1, 2001. However, effective June 15, 2001, the Maine Legislature enacted Maine law, 38 M.R.S.A. §413, sub-§11 specifying that interim mercury limits and monitoring requirements remain in effect. It is noted that the mercury effluent limitations have not been incorporated into Special Condition A, Effluent Limitations And Monitoring Requirements, of this permit as the limits and monitoring frequencies are regulated separately through Maine law, 38 M.R.S.A. §413 and Department rule Chapter 519. The interim mercury limits remain in effect and enforceable and modifications to the limits and/or monitoring frequencies will be formalized outside of this permitting document pursuant to Maine law, 38 M.R.S.A. §413 and Department rule Chapter 519.
- i. Whole Effluent Toxicity (WET) & Chemical-Specific Testing: Maine law, 38 M.R.S.A., Sections 414-A and 420, prohibit the discharge of effluents containing substances in amounts that would cause the surface waters of the State to contain toxic substances above levels set forth in Federal Water Quality Criteria as established by the USEPA. Department Rules, 06-096 CMR Chapter 530, Surface Water Toxics Control Program, and Chapter 584, Surface Water Quality Criteria for Toxic Pollutants set forth ambient water quality criteria (AWQC) for toxic pollutants and procedures necessary to control levels of toxic pollutants in surface waters.

WET, priority pollutant and analytical chemistry testing as required by Chapter 530 are included in this permit in order to characterize the effluent. This permit also provides for reconsideration of effluent limits and monitoring schedules after evaluation of toxicity testing results. The monitoring schedule includes consideration of results currently on file, the nature of the wastewater, existing treatment and receiving water characteristics.

WET monitoring is required to assess and protect against impacts upon water quality and designated uses caused by the aggregate effect of the discharge on specific aquatic organisms. Acute and chronic WET tests are performed on invertebrate and vertebrate species. Priority pollutant and analytical chemistry testing is required to assess the levels of individual toxic pollutants in the discharge, comparing each pollutant to acute, chronic, and human health ambient water quality criteria as established in Chapter 584.

Chapter 530 establishes four categories of testing requirements based predominately on the chronic dilution factor. The categories are as follows:

- 1) Level I chronic dilution factor of <20:1.
- 2) Level II chronic dilution factor of >20:1 but <100:1.
- 3) Level III chronic dilution factor  $\geq$ 100:1 but <500:1 or >500:1 and Q  $\geq$ 1.0 MGD
- 4) Level IV chronic dilution >500:1 and Q ≤1.0 MGD

Department rule Chapter 530 (2)(D) specifies the criteria to be used in determining the minimum monitoring frequency requirements for WET, priority pollutant and analytical chemistry testing. Based on the Chapter 530 criteria, the YSD facility falls into the Level III frequency category as the facility has a chronic dilution factor of  $\geq$ 100:1 but <500:1. Chapter 530(2)(D)(1) specifies that surveillance and screening level testing requirements are as follows:

Screening level testing

Level	WET Testing	Priority pollutant	Analytical chemistry	
		testing		
III	1 per year	1 per year	4 per year	

Surveillance level testing

Level	WET Testing	Priority pollutant	Analytical chemistry	
ļ		testing		
III	1 per year	None required	1 per year	

A review of the data on file with the Department for the YSD indicates that to date, it has fulfilled the WET and chemical-specific testing requirements of the former Chapter 530.5. See Attachment C of this Fact Sheet for a summary of the WET test results and Attachment D of this Fact Sheet for a summary of the chemical-specific test dates.

Chapter 530(2)(D)(3)(b) states in part that for Level III facilities "... may be waived from conducting surveillance testing for individual WET species or chemicals provided that testing in the preceding 60 months does not indicate any reasonable potential for exceedence as calculated pursuant to section 3(E)".

Chapter 530 §3 states, "In determining if effluent limits are required, the Department shall consider all information on file and effluent testing conducted during the preceding 60 months. However, testing done in the performance of a Toxicity Reduction Evaluation (TRE) approved by the Department may be excluded from such evaluations."

Chapter 530 §(3)(E) states "For effluent monitoring data and the variability of the pollutant in the effluent, the Department shall apply the statistical approach in Section 3.3.2 and Table 3-2 of USEPA's "Technical Support Document for Water Quality-Based Toxics Control" (USEPA Publication 505/2-90-001, March, 1991, EPA, Office of Water, Washington, D.C.) to data to determine whether water-quality based effluent limits must be included in a waste discharge license. Where it is determined through this approach that a discharge contains pollutants or WET at levels that have a reasonable potential to cause or contribute to an exceedence of water quality criteria, appropriate water quality-based limits must be established in any licensing action."

### **WET Evaluation**

On April 1, 2006, the Department conducted a statistical evaluation on the WET tests results in the most recent 60-month period. The statistical evaluation indicates the discharge from the YSD waste water treatment facility does not exceed or have a reasonable potential to exceed the critical acute or chronic water quality thresholds of 3.1% and 0.8% respectively, (mathematical inverse of the acute and chronic dilution factors of 32:1 and 132:1 respectively) for any of the WET species specified for testing in Chapter 530. Therefore, no numeric limitations for any WET species are being established in this permitting action.

As for testing frequencies, Chapter 530(2)(D)(3)(b) states in part that for Level III facilities "... may be waived from conducting surveillance testing for individual WET species or chemicals provided that testing in the preceding 60 months does not indicate any reasonable potential for exceedence as calculated pursuant to section 3(E)". Based on the results of the 4/1/06 statistical evaluation, the Department has made the determination that the permittee qualifies for the testing waiver. Therefore, this permit action establishes only screening level WET testing requirements as follows:

Beginning 12 months prior to and lasting through permit expiration and every five years thereafter.

Level	WET Testing	
· III	1 per year	

Chapter 530 (2)(D) states:

- (4) All dischargers having waived or reduced testing must file statements with the Department on or before December 31 of each year describing the following.
  - (a) Changes in the number or types of non-domestic wastes contributed directly or indirectly to the wastewater treatment works that may increase the toxicity of the discharge;
  - (b) Changes in the operation of the treatment works that may increase the toxicity of the discharge; and
  - (c) Changes in industrial manufacturing processes contributing wastewater to the treatment works that may increase the toxicity of the discharge.

Special Condition L, Chapter 530 (2)(D)(4) Certification, of this permitting action requires the permittee to file an annual certification with the Department.

### Analytical chemistry and priority pollutant testing evaluation

Chapter 530 §3 states, "In determining if effluent limits are required, the Department shall consider all information on file and effluent testing conducted during the preceding 60 months. However, testing done in the performance of a Toxicity Reduction Evaluation (TRE) approved by the Department may be excluded from such evaluations."

Chapter 530 §4(C), states "The background concentration of specific chemicals must be included in all calculations using the following procedures. The Department may publish and periodically update a list of default background concentrations for specific pollutants on a regional, watershed or statewide basis. In doing so, the Department shall use data collected from reference sites that are measured at points not significantly affected by point and non-point discharges and best calculated to accurately represent ambient water quality conditions." The Department shall use the same general methods as those in section 4(D) to determine background concentrations. For pollutants not listed by the Department, an assumed concentration of 10% of the applicable water quality criteria must be used in calculations. The Department has no information on the background levels of metals in the water column in Cape Neddick Harbor. Therefore, a default background concentration of 10% of the applicable ambient water quality criteria is being used in the calculations of this permitting action.

Chapter 530 4(E), states "In allocating assimilative capacity for toxic pollutants, the Department shall hold a portion of the total capacity in an unallocated reserve to allow for new or changed discharges and non-point source contributions. The unallocated reserve must be reviewed and restored as necessary at intervals of not more than five years. The water quality reserve must be not less than 15% of the total assimilative quantity". Therefore, the Department is reserving 15% of the applicable water quality criteria in the calculations of this permitting action.

As with WET test results, on 4/1/06, the Department conducted a statistical evaluation on the most recent 60 months of analytical chemistry and priority pollutant test results on file with the Department in accordance with the statistical approach specified by Chapter 530. The statistical evaluation indicates that none of the parameters evaluated exceed or have a reasonable potential to exceed acute, chronic or human health AWQC.

Chapter 530(2)(D)(3)(b) states in part that for Level III facilities "... may be waived from conducting surveillance testing for individual WET species or chemicals provided that testing in the preceding 60 months does not indicate any reasonable potential for exceedence as calculated pursuant to section 3(E). Based on the results of the 4/1/06 statistical evaluation, the Department has made the determination that the permittee qualifies for the testing waiver. Therefore, this permit action establishes screening level chemical testing requirements as follows:

Beginning 12 months prior to and lasting through permit expiration and every five years thereafter

Level	Priority pollutant testing	Analytical chemistry	
III	1 per year	4 per year	

It is noted however that if future WET or chemical testing indicates the discharge exceeds critical water quality thresholds or AWQC, this permit will be reopened pursuant to Special Condition M, *Reopening of Permit For Modification*, of this permit to establish applicable limitations and monitoring requirements.

### 7. DISCHARGE IMPACT ON RECEIVING WATER QUALITY

As permitted, the Department has determined the existing water uses will be maintained and protected and the discharge will not cause or contribute to the failure of the waterbody to meet standards for Class SB classification.

### 8. PUBLIC COMMENTS

Public notice of this application was made in the Portsmouth Herald newspaper on April 22, 2006. The Department receives public comments on an application until the date a final agency action is taken on that application. Those persons receiving copies of draft permits shall have at least 30 days in which to submit comments on the draft or request a public hearing, pursuant to Chapter 522 of the Department's rules.

### 9. DEPARTMENT CONTACTS

Additional information concerning this permitting action may be obtained from and written comments should be sent to:

Gregg Wood
Division of Water Quality Management
Bureau of Land and Water Quality
Department of Environmental Protection
17 State House Station
Augusta, Maine 04333-0017
Tel

Telephone (207) 287-3901

e-mail: gregg.wood@maine.gov

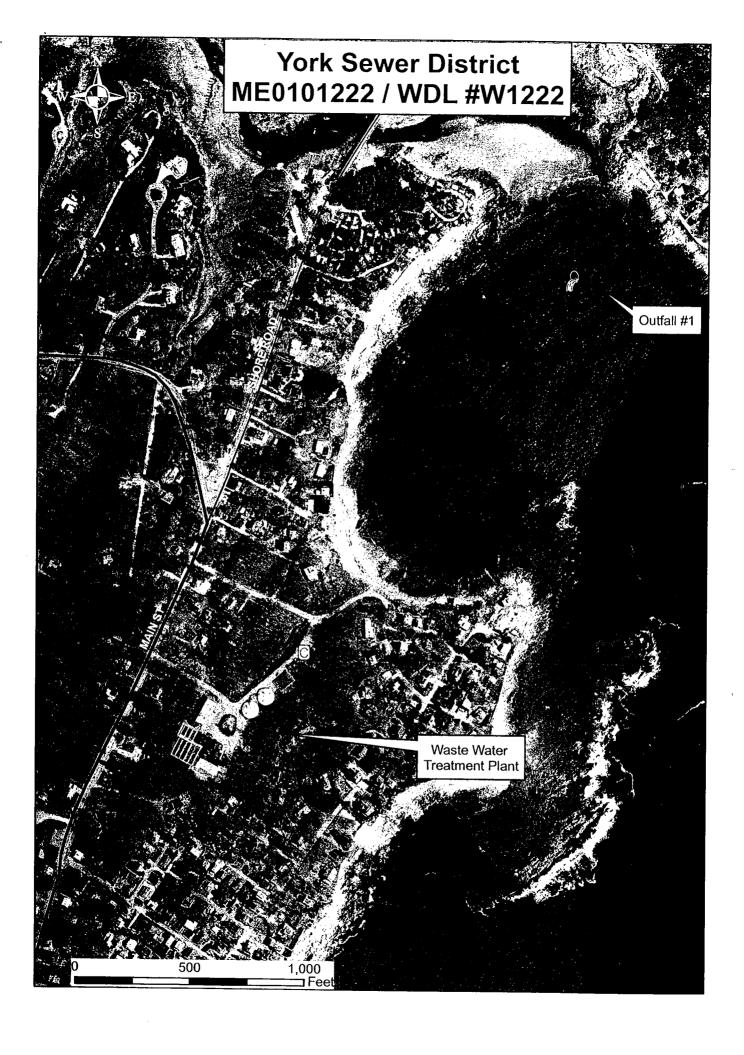
### 10. RESPONSE TO COMMENTS

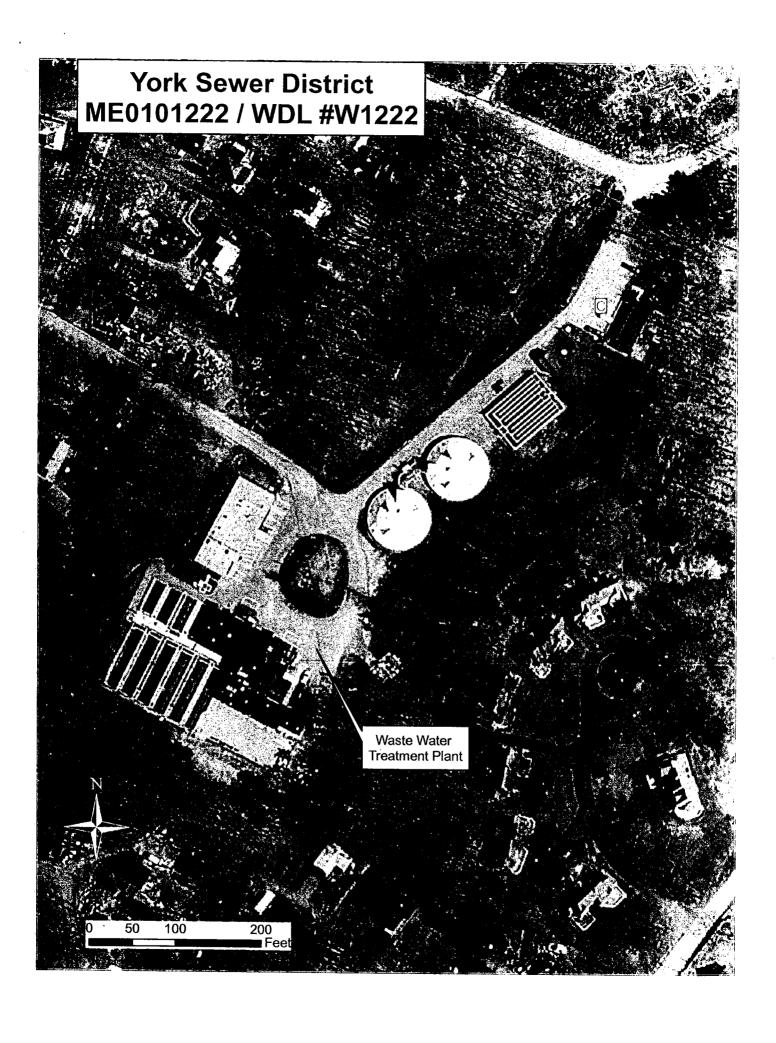
During the period of April 25, 2006 through the date of permit issuance, the Department solicited comments on the proposed draft Maine Pollutant Discharge Elimination System Permit to be issued to the York Sewer District's facility in York, Maine. The Department did not receive any comments from any party that resulted in significant revisions to the terms and conditions of the permit. Therefore, no response to comments has been prepared.

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·			

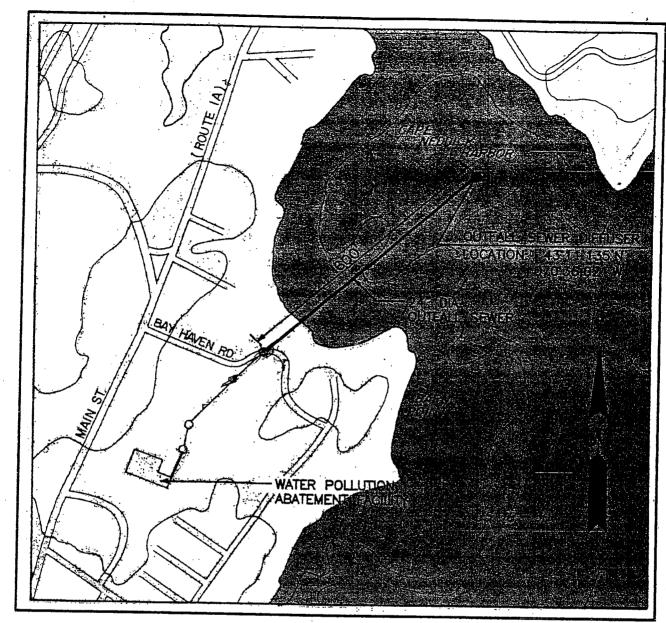
# ATTACHMENT A

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			·	





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				•	
			·		



NOT TO SCALE

CONTINUATION TO CAPE NEDDICK HARBOR NOAA CHART 13283\_3 (DATUM IN FEET)

VICINITY MAP



### Appledore Engineering Inc.

15 Rye Street, Suite 305
Pease International Tradeport
Portsmouth, New Hampshire 03801
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UNDERWATER DAMAGE INSPECTION OF CAPE NEDDICK HARBOR OUTFALL

CAPE NEDDICK HARBOR YORK BEACH, MAINE JULY 2002



YORK SEWER DISTRICT YORK BEACH, ME 03910

1776-LOCATION.DWG

FIGURE 2

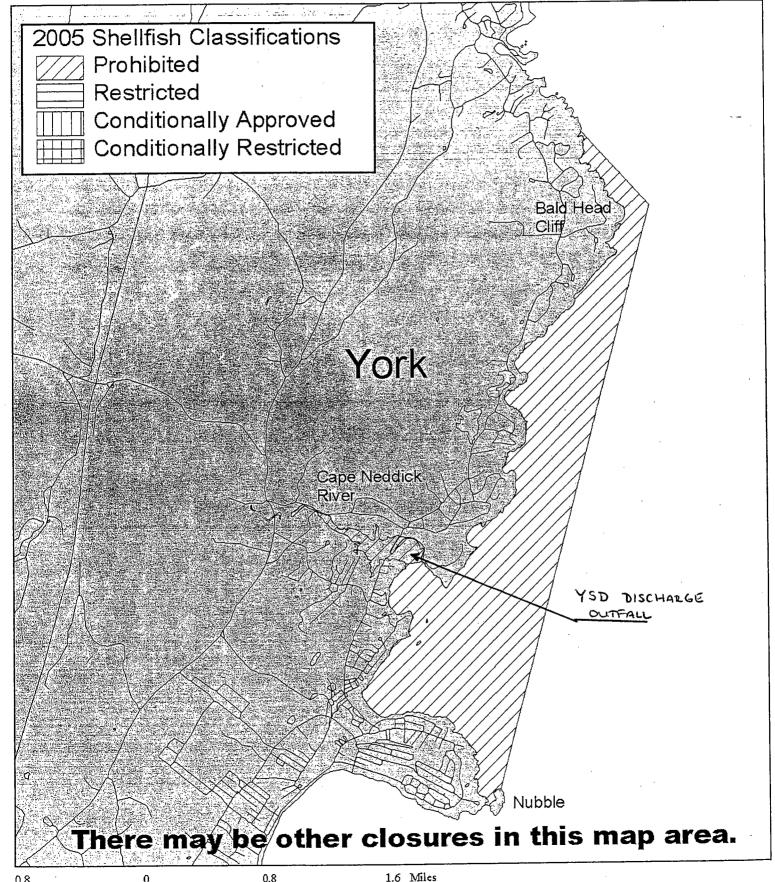


### Maine Department of Marine Resources

Legal Notice of Shellfish Closure Area

3/28/05

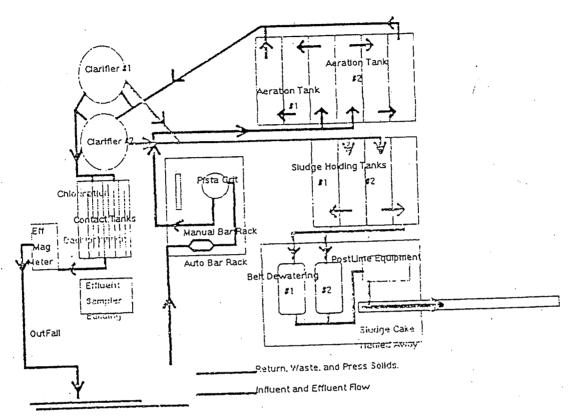
C3 Cape Neddick



### ATTACHMENT B

### Afrachment A Section 4.

Plant Diagram



Tides Waters of Cape Neddick Harbour

## ATTACHMENT C

Flow: 3.0 MGD

Chronic dilution: 18.0:1 Acute dilution: 18.0:1

Test Result

Page 1 . 04/25/2006

	Species	Test	Test Result %	Sample Date
	MYSID SHRIMP	A_NOEL	77	04/03/1995
	MYSID SHRIMP	LC50	>77	04/03/1995
	SILVER SIDE	A_NOEL	>77	04/03/1995
	SILVER SIDE	C_NOEL	77	04/03/1995
	SILVER SIDE	LC50	>77	04/03/1995
	MYSID SHRIMP	A_NOEL	78	10/01/1995
	MYSID SHRIMP	LC50	>78	10/02/1995
*	SILVER SIDE	A_NOEL	>77	10/02/1995
	SILVER SIDE	C_NOEL	77	10/02/1995
	SILVER SIDE	LC50	>77	10/02/1995
	MYSID SHRIMP	A_NOEL	76	04/14/1996
	MYSID SHRIMP	LC50	>76	04/14/1996
	SILVER SIDE	A_NOEL	76	04/14/1996
	SILVER SIDE	C_NOEL	76	04/14/1996
	SILVER SIDE	LC50	>76	04/14/1996
	MYSID SHRIMP	A_NOEL	77.0	05/11/1997
	MYSID SHRIMP	LC50	>77.0	05/11/1997
	SILVER SIDE	A_NOEL	77.0	05/11/1997
	SILVER SIDE	C_NOEL	77.0	05/11/1997
	SILVER SIDE	LC50	>77.0	05/11/1997
	SEA URCHIN	C_NOEL	70.0	07/22/1997
	MYSID SHRIMP	A_NOEL	100	04/05/1998
	MYSID SHRIMP	LC50	>100	04/05/1998
,	SEA URCHIN	C_NOEL	6.25	04/05/1998
	SILVER SIDE	A_NOEL	100	04/05/1998
	SILVER SIDE	C_NOET	100	04/05/1998
	SILVER SIDE	LC50	>100	04/05/1998
	MYSID SHRIMP	A_NOEL	100	04/04/1999
	MYSID SHRIMP	LC50	>100	04/04/1999
	SEA URCHIN	C_NOEL	100	04/04/1999
	SILVER SIDE	A_NOEL	100	04/04/1999
	SILVER SIDE	C_NOEL	100	04/04/1999
	SILVER SIDE	LC50	>100	04/04/1999
	MYSID SHRIMP	A_NOEL	100	07/11/1999
	MYSID SHRIMP	LC50	>100	07/11/1999
	SEA URCHIN	C_NOEL	100	07/11/1999
	SILVER SIDE	A_NOEL	50.0	07/11/1999
	SILVER SIDE	C_NOEL	50.0	07/11/1999
	SILVER SIDE	LC50	84.5	07/11/1999
	MYSID SHRIMP	A_NOEL	50	10/04/1999
	MYSID SHRIMP	LC50	66.1	10/04/1999
	SILVER SIDE	A_NOEL	100	10/04/1999

Flow: 3.0 MGD

Chronic dilution: 18.0:1 Acute dilution: 18.0:1 Page 2 04/25/2006

	Species	Test	Test Result	Sample Date
	SILVER SIDE	C_NOEL	100	10/04/1999
	SILVER SIDE	LC50	>100	10/04/1999
	MYSID SHRIMP	A_NOEL	100	01/18/2000
-	MYSID SHRIMP	LC50	>100	01/18/2000
	SEA URCHIN	C_NOEL	100	01/18/2000
	SILVER SIDE	A_NOEL	100	01/18/2000
	SILVER SIDE	C_NOEL	100	01/18/2000
	SILVER SIDE	LC50	>100	01/18/2000
	MYSID SHRIMP	A_NOEL	21.2	04/17/2000
	MYSID SHRIMP	LC50	>100	04/17/2000
	SEA URCHIN	C_NOEL	100	04/17/2000
	SILVER SIDE	A_NOEL	100	04/17/2000
	SILVER SIDE	C_NOEL	100	04/17/2000
	SILVER SIDE	LC50	>100	04/17/2000
	MYSID SHRIMP	A_NOEL	100	04/23/2001
•	MYSID SHRIMP	LC50	>10.0	04/23/2001
	SEA URCHIN	C_NOEL	50	04/23/2001
	SILVER SIDE	A_NOEL	100	04/23/2001
	SILVER SIDE	C_NOEL	100	04/23/2001
	SILVER SIDE	LC50	>100	04/23/2001
	MYSID SHRIMP	A_NOEL	100	05/06/2002
	MYSID SHRIMP	LC50	>100	05/06/2002
	SEA URCHIN	C_NOEL	50	05/06/2002
	SILVER SIDE	A_NOEL	100	05/06/2002
	SILVER SIDE	C_NOEL	50	05/06/2002
	SILVER SIDE	LC50	>100	05/06/2002
	MYSID SHRIMP	A_NOEL	100	04/28/2003
	MYSID SHRIMP	LC50	>100	04/28/2003
	SEA URCHIN	C_NOEL	1,00	04/28/2003
	SILVER SIDE	A_NOEL	100	04/28/2003
	SILVER SIDE	C_NOEL	. 100	04/28/2003
	SILVER SIDE	LC50	>100	04/28/2003
	MYSID SHRIMP	A_NOEL	>100	05/17/2004
	MYSID SHRIMP	LC50	>100	05/17/2004
	SEA URCHIN	C_NOEL	100	05/17/2004
	SILVER SIDE	A_NOEL	>100	05/17/2004
	SILVER SIDE	C_NOEL	6.25	05/17/2004
	SILVER SIDE	LC50	. >100	05/17/2004
	MYSID SHRIMP	A_NOEL	>100	03/20/2005
	MYSID SHRIMP	LC50	>100	03/20/2005
	SEA URCHIN	C_NOEL	100	03/20/2005
•	SILVER SIDE	A_NOEL	>100	03/20/2005

YORK CAPE NEDDICK HARBOR Flow: 3.0 MGD

Chronic dilution: 18.0:1 Acute dilution: 18.0:1 Page 3 04/25/2006

Species	Test	Test Result %	Sample Date	
SILVER SIDE	C_NOEL	100	. 03/20/2005	
SILVER SIDE	LC50	>100	03/20/2005	
MYSID SHRIMP	A_NOEL	>100	05/02/2005	
MYSID SHRIMP	LC50	>100	05/02/2005	
SEA URCHIN	C_NOEL	100	05/02/2005	
SILVER SIDE	A_NOEL	>100	05/02/2005	
SILVER SIDE	C_NOEL	100	05/02/2005	
SILVER SIDE	LC50	>100	05/02/2005	
MYSID SHRIMP	A_NOEL	>100	08/15/2005	
MYSID SHRIMP	LC50	>100	08/15/2005	
SEA URCHIN	C_NOEL	100	08/15/2005	
SILVER SIDE	A_NOEL	>100	08/15/2005	
SILVER SIDE	C_NOEL	100	08/15/2005	
SILVER SIDE	LC50	>100	08/15/2005	

### ATTACHMENT D

Sample Date: 04/23/2001 Plant flows provided

134 otal Tests:

issing Compounds:

0

mon.(MGD) = 1.940day(MGD) = 1.330

ests With High DL:

M = 3

V = 5

A = 0

BN = 3

P = 0

other = 0

Sample Date: 08/15/2005

Plant flows provided

Total Tests:

Missing Compounds:

142 0

mon.(MGD) = 1.940

day(MGD) = 1.330

10 Tests With High DL:

M = 2

V = 0

A = 1

BN = 7

P = 0

other = 0

Sample Date: 12/18/2002 Plant flows provided

otal Tests:

123

mon.(MGD) = 1.553

issing Compounds:

1

day(MGD) = 1.828

0 ests With High DL:

M = 0

V = 0

A = 0

BN = 0

P = 0

other = 0

Sample Date: 05/17/2004

Plant flows provided

otal Tests:

133

mon. (MGD) = 1.940

issing Compounds:

0 1

day(MGD) = 1.330

ests With High DL:

M = 1

V = 0

A = 0

BN = 0

P = 0

other = 0

Sample Date: 03/21/2005

Plant flows provided

otal Tests:

132

1

mon.(MGD) = 1.940

issing Compounds:

0

day(MGD) = 1.330

ests With High DL:

M = 1

V = 0

A = 0

BN = 0

P = 0

other = 0

Sample Date: 05/02/2005

Plant flows provided

otal Tests:

132 0 mon.(MGD) = 1.940day(MGD) = 1.330

issing Compounds: ests With High DL:

M = 0

0  $\Lambda = 0$ 

A = 0

BN = 0

P = 0

other = 0

#### PP Data for "Hits" Only

#### ORK

APE NEDDICK HARBOR

MMONT A	. <u> </u>			
mmonia o MDL	Conc, ug/l	MDL	Sample Date	Date Entered
	8.500000	NS	08/15/2005	12/28/2005
	900.00000	NS	03/21/2005	05/26/2005
•	2000.00000	NS	04/28/2003	03/02/2004
	3200.00000	NS	04/23/2001	11/28/2001
	3300.00000	NS	05/17/2004	08/20/2004
	7340.00000	NS	05/06/2002	08/08/2002
	8500.00000	NS	08/15/2005	01/05/2006
	< 100.000000	NS	05/02/2005	08/08/2005
RSENIC	Conc, ug/l	MDL	Sample Date	Date Entered
DL = 5  ug/l	4.000000	OK	05/17/2004	09/22/2004
		OK	12/18/2002	10/15/2003
		OK	03/21/2005	05/26/2005
		OK	.05/02/2005	08/08/2005
		OK	08/15/2005	12/28/2005
	< 5.000000 < 10.000000	HI	04/23/2001	12/06/2001
	7 10.000000		01,00,01	
IS (2-ETHYLHEXYL) PHTHALATE	Conc, ug/l	MDL	Sample Date	Date Entered
DL = 3.0  ug/l	110.000000	OK	08/15/2005	12/28/2005
		OK	04/23/2001	12/06/2001
	< 2.000000	OK	12/18/2002	10/15/2003
	< 2.000000	OK	05/02/2005	08/08/2005
			03/21/2005	05/26/2005
		OK	05/17/2004	09/22/2004
	< 3.000000			
HLOROFORM	Conc, ug/l	MDL	Sample Date	Date Entered
DL = 5.0  ug/l	27.000000	OK	05/02/2005	08/08/2005
		OK	12/18/2002	10/15/2003
		OK	03/21/2005	05/26/2005
		OK	04/23/2001	12/06/2001
		OK .	05/17/2004	09/22/2004
	< 5.000000 < 5.000000	OK	08/15/2005	12/28/2005
PHENOL DL = 5 ug/l	Conc, ug/l	MDL	Sample Date	Date Entered
	16.000000	OK	05/17/2004	09/22/2004
	< 0.010000	OK	03/21/2005	05/26/2005
	< 0.050000	OK	05/02/2005	08/08/2005
	< 2.000000	OK	04/23/2001	12/06/2001
	< 5.000000	OK	12/18/2002	10/15/2003
•	< 6.000000	HI	08/15/2005	12/28/2005
	. 0.000000	<del></del>		

#### PP Data for "Hits" Only

#### ORK

APE NEDDICK HARBOR

ELENIUM  OL = 5 ug/l	Conc, ug/l	MDL	Sample Date	Date Entered
JL - J ug/I	9.000000 < 1.000000 < 3.000000 < 3.000000 < 5.000000 < 5.000000	OK OK OK OK OK	05/17/2004 12/18/2002 03/21/2005 05/02/2005 04/23/2001 08/15/2005	09/22/2004 10/15/2003 05/26/2005 08/08/2005 12/06/2001 12/28/2005
HALLIUM	Conc, ug/l	MDL	Sample Date	Date Entered
DL = 4 ug/l	5.000000 < 1.000000 < 3.000000 < 3.000000 < 3.000000 < 10.000000	OK OK OK HI	08/15/2005 12/18/2002 05/02/2005 03/21/2005 05/17/2004 04/23/2001	12/28/2005 10/15/2003 08/08/2005 05/26/2005 09/22/2004 12/06/2001